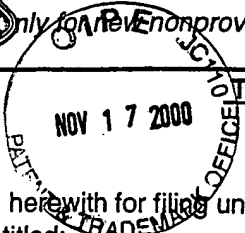


# UTILITY PATENT APPLICATION TRANSMITTAL (Large Entity)

(Only for ~~non~~provisional applications under 37 CFR 1.53(b))

Docket No.  
2204/196

Total Pages in this Submission  
60



TO THE ASSISTANT COMMISSIONER FOR PATENTS

Box Patent Application  
Washington, D.C. 20231

**DOCKETED**

Transmitted herewith for filing under 35 U.S.C. 111(a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:

**METHOD AND APPARATUS FOR QUEUE MODELING**

and invented by:

Victor Firoiu  
Marty Borden

If a CONTINUATION APPLICATION, check appropriate box and supply the requisite information:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: \_\_\_\_\_

Which is a:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: \_\_\_\_\_

Which is a:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: \_\_\_\_\_

Enclosed are:

## Application Elements

1. ☐ Filing fee as calculated and transmitted as described below
2. ☒ Specification having 34 pages and including the following:
  - a. ☒ Descriptive Title of the Invention
  - b. ☒ Cross References to Related Applications (if applicable)
  - c. ☐ Statement Regarding Federally-sponsored Research/Development (if applicable)
  - d. ☐ Reference to Microfiche Appendix (if applicable)
  - e. ☒ Background of the Invention
  - f. ☒ Brief Summary of the Invention
  - g. ☒ Brief Description of the Drawings (if drawings filed)
  - h. ☒ Detailed Description
  - i. ☒ Claim(s) as Classified Below
  - j. ☒ Abstract of the Disclosure

**Response To Notice To File Missing Parts Of Application  
Filing Date Granted (PTO-1533)(Large Entity)**

Docket No.  
2204/196

In Re Application Of: **Firoiu et al.**

Serial No.  
09/579,169

Filing Date  
May 25, 2000

Examiner  
Not Yet Assigned

Group Art Unit  
Not Yet Assigned

Invention: **METHOD AND APPARATUS FOR QUEUE MODELING**

TO THE ASSISTANT COMMISSIONER FOR PATENTS:

Box Missing Parts

☒ Completion of application fees as calculated below:

☒ Utility application filing fee \$690.00

☐ Design application filing fee \_\_\_\_\_

☒ Total number of independent claims = 29 \$2,028.00

☒ Total number of claims = 92 \$1,296.00

☐ Multiple dependent claims \_\_\_\_\_

☒ Surcharge for late payment of filing fee and/or late filing of original declaration or oath \$130.00

☒ Petition and fee for filing by other than all the inventors or a person not the invention \$130.00

☐ Fee for processing an application filed with a non-English language specification \_\_\_\_\_

☐ Fee for processing and retention of application \_\_\_\_\_

Total completion of application fees \$4,274.00

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a response to the above-identified Notice to File Missing Parts of Application. The requested extension is as follows (check time period desired). If an additional time extension is required, please consider this a petition therefor.

☒ One month    ☐ Two months    ☐ Three months    ☐ Four months    ☐ Five months

from: October 15, 2000    until: November 15, 2000  
*Date* *Date*

Total time extension fees \$110.00

Total fees due \$4,384.00

**Response To Notice To File Missing Parts Of Application  
Filing Date Granted (PTO-1533) (Large Entity)**

Docket No.  
2204/196

In Re Application Of: Firoiu et al.

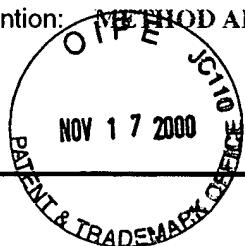
Serial No.  
09/579,169

Filing Date  
May 25, 2000

Examiner  
Not Yet Assigned

Group Art Unit  
Not Yet Assigned

Invention: METHOD AND APPARATUS FOR QUEUE MODELING



TO THE ASSISTANT COMMISSIONER FOR PATENTS:

Box Missing Parts

The fee of \$4,384 is to be paid as follows:

- ☒ A check in the amount of the fee is enclosed.
- ☒ The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account No. 19-4972  
A duplicate copy of this sheet is enclosed.
- ☒ If an additional extension of time is required, please consider this a petition therefor and charge any additional fees which may be required to Deposit Account No. 19-4972  
A duplicate copy of this sheet is enclosed.

  
Signature

Dated: November 15, 2000

Jeffrey T. Klayman, Reg. No. 39,250  
BROMBERG & SUNSTEIN LLP  
125 Summer Street  
Boston, MA 02110  
(617) 443-9292

I certify that this document and fee is being deposited  
on 11/15/00 with the U.S. Postal Service as  
first class mail under 37 C.F.R. 1.8 and is addressed to the  
Commissioner for Patents, Washington, D.C.  
20231.

  
Signature of Person Mailing Correspondence

Jeffrey T. Klayman

Typed or Printed Name of Person Mailing Correspondence

cc:

#3 Sector #

**Response To Notice To File Missing Parts Of Application  
Filing Date Granted (PTO-1533)(Large Entity)**

Docket No.  
2204/196

In Re Application Of: Firoiu et al.

Serial No.  
09/579,169

Filing Date  
May 25, 2000

Examiner  
Not Yet Assigned

Group Art Unit  
Not Yet Assigned

Invention: METHOD AND APPARATUS FOR QUEUE MODELING



TO THE ASSISTANT COMMISSIONER FOR PATENTS:

Box Missing Parts

This is a response to the Notice to File Missing Parts of Application - Filing Date Granted (PTO-1533) mailed on  
August 15, 2000  
Date

Enclosed herewith for filing are the following:

- ☒ A copy of the Notice to File Missing Parts of Application - Filing Date Granted (PTO-1533). **(REQUIRED)**
- ☐ An oath or declaration in compliance with 37 CFR 1.63, including residence information and identifying the application by the above Application Number and Filing Date.
- ☒ A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date.
- ☐ An oath or declaration in compliance with 37 CFR 1.63 listing the names of all inventors and signed by the omitted inventor(s), identifying this application by the above Application Number and Filing Date.
- ☐ A verified English translation of the non-English language application papers as originally filed. It is requested that this translation be used as the copy for examination purposes in the United States Patent and Trademark Office.
- ☒ Other (list):

Petition Under Rule 1.47(a)  
Declaration of Jeffrey Klayman in Support of Petition Under Rule 1.47(a)  
Declaration of Steven Saunders in Support of Petition Under Rule 1.47(a)  
Request for Recordal of Assignment w/\$40 check

11/21/2000 MARMOL 00000042 194972 09579169

02 FC:115

110.00 DP

## FORMALITIES LETTER



\*OC00000005324400\*

UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark OfficeAddress: COMMISSIONER OF PATENT AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/579,169	05/25/2000	Victor Firoiu	2204/196

John J Stickevers  
Bromberg & Sunstein LLP  
125 Summer Street  
Boston, MA 02110

Date Mailed: 08/15/2000



## NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

*Filing Date Granted*

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given TWO MONTHS from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.  
*Applicant must submit \$ 690 to complete the basic filing fee and/or file a small entity statement claiming such status (37 CFR 1.27).*
- Total additional claim fee(s) for this application is \$3324.
  - \$1296 for 72 total claims over 20.
  - \$2028 for 26 independent claims over 3 .
- The oath or declaration is unsigned.
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(e) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.
- **The balance due by applicant is \$ 4144.**

*A copy of this notice MUST be returned with the reply.*

*John J. Middleton*  
Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE

11/21/2000 MMARMOL 00000042 194972 09579169

04 FC:105		130.00 OP
05 FC:103		1296.00 OP
06 FC:102		2080.00 OP
07 FC:101	72.00 CH	638.00 OP

BRUCE D. SUNSTEIN  
LEE CARL BROMBERG  
ROBERT L. KANN  
TIMOTHY M. MURPHY  
KERRY L. TIMBERS  
JOEL R. LEEMAN  
ROBERT M. ASHER  
THOMAS C. CAREY  
EDWARD J. DAILEY  
ERIK PAUL BELT  
JULIA HUSTON

JUDITH R.S. STERN  
LISA M. FLEMING  
HARRIET M. STRIMPEL, D. PHIL.

PATENT AGENTS\*  
SONIA K. GUTERMAN, PH.D.  
YANG XU, PH.D.  
\*NON-LAWYER

## BROMBERG & SUNSTEIN LLP

ATTORNEYS AT LAW

125 SUMMER STREET

BOSTON, MA 02110-1618

(617) 443-9292  
FACSIMILE: (617) 443-0004  
WWW.BROMSUN.COM

DOCKETED



June 30, 2000

Marty Borden  
30 Shaker Lane  
Littleton, MA 01460

THEODORE E. MACVEAGH  
ANNE MARIE LONGOBUCCO  
JENNIFER G. CRAMER  
STEVEN G. SAUNDERS  
SAMUEL J. PETUCHOWSKI, PH.D.  
CHRISTOPHER K. BARRY-SMITH  
KAREN A. BUCHANAN  
LISA M. TITTEMORE  
JOHN J. STICKEVERS  
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ELIZABETH P. MORANO  
DAVID ROBERT FOSS  
JENNIFER R. ADLER  
KEITH J. WOOD  
ALEXANDER J. SMOLENSKI, JR.  
\*NOT ADMITTED IN MASSACHUSETTS

## REMINDER

September 12, 2000

Re: U.S. Patent Application for **METHOD & APPARATUS FOR  
QUEUE MODELING**

Your Ref: BA0456

Our File: 2204/196

Dear Mr. Borden:

We have received our return postcard from the Patent and Trademark Office (PTO) relating to the above-referenced patent application. Enclosed is a copy of our return postcard for your records.

The PTO date stamp shows that the application was received on May 25, 2000, and was tentatively assigned serial number 09/579,169.

In order to obtain the earliest possible filing date, the application was submitted without an executed Declaration. Therefore, we must now fulfill the filing requirements of the PTO. Accordingly, we request signatures on various documents. Please have the enclosed documents executed as follows:

1. Combined Declaration and Power of Attorney. Each inventor should sign and date this document where indicated.
2. Assignment. This document conveys the rights of the above invention from the inventors to Nortel Networks Limited. Each inventor should sign and date this document.

I would appreciate receiving the Declaration and Power of Attorney and Assignment before

July 25, 2000

Marty Borden  
June 30, 2000  
Page 2

so that we may complete the filing requirements of the PTO without an additional expense for an extension of time. Once we have received the signed documents from you, we will file them with the PTO, and assuming that no problems are encountered, we can expect to receive a formal filing receipt in due course.

We remind you at this time that an applicant is under a strict duty of candor and good faith. As part of this duty, an applicant is obliged to disclose to the PTO any and all information of which the applicant is aware that is material to the examination of the application. Such information is considered material where "there is a substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent." 37 C.F.R. §1.56(a).

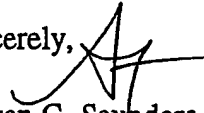
One means for complying with this duty of disclosure is the so called "Information Disclosure Statement." An information disclosure statement is a listing of patents, publications, or other information, together with an explanation of the relevance of each listed item, together with copies and translations of listed items, as appropriate. Ideally, an information disclosure statement should be filed with the application. However, an information disclosure statement can also be filed within the later of three months after the filing date of the application or before the first office action is issued. Of course, if the applicant becomes aware of any relevant art at any point during the prosecution, it is appropriate to file an information disclosure statement at that time as well.

Therefore, if you are aware of any relevant art, including relevant articles, patents, or other publications (or events such as offering for sale or public use of a product embodying the invention more than one year before the effective filing date of the application), please send us copies of these documents (or information concerning these events) at your earliest convenience so that we may comply with the duty of disclosure. For example, you may have uncovered such documents while researching the subject matter to be patented, or conducting novelty or clearance searches. Also, such documents often turn up during the course of prosecution of a related case in a foreign jurisdiction. If there is any question as to whether or not a particular document or event is relevant, it is advisable to disclose that document or event to the PTO in order to avoid any possible allegation of fraudulent or inequitable conduct, and to strengthen any patent ultimately issuing on the application.

Marty Borden  
June 30, 2000  
Page 2

Thank you for your attention to this matter. Please feel free to call me if you have any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to be 'S. G. Saunders', with a stylized, sweeping flourish extending to the right.

Steven G. Saunders

SGS/vcl  
Enclosures  
02204/00196 121935.1



**Fr m:** Jeff T. Klayman  
**T :** out:"mborden@acm.org"  
**Dat :** 9/22/00 3:10PM  
**Subj ct:** patent application



22a/196  
22a/1A05

Marty,

You were named as an inventor on a patent application that was prepared by our law firm. We sent two documents that require your signature to your home address, specifically a combined declaration and power of attorney and an assignment. To date, we have not received the executed documents from you. We recently sent you a reminder. Would you please contact me at (617) 443-9292 so we can discuss this matter further. I prefer not to send any information that would identify the patent application by email.

Thank you.

Jeff

Bromberg & Sunstein LLP  
Attorneys at Law  
125 Summer Street  
Boston, MA 02110-1618  
Tel: (617) 443-9292  
Fax: (617) 443-0004  
www.bromsun.com

This message is intended only for the addressee(s), and may contain information that is privileged and confidential. If the recipient of this message is not an addressee, please notify us immediately by telephone.

**CC:** jtk



DOCKETED

JUS:vel

Inventor: Firofju et al.

Title: METHOD & APPARATUS FOR QUEUE  
MODELING

Serial/Patent No:

Filing/Issue Date:

Document:

(X) New Application Transmittal

( ) Provisional Application Cover Sheet

(X) Description - 18 pages

(X) Claims - 14 pages

(X) Abstract

(X) 18 sheets of drawings

( ) formal (X) informal

(X) Declaration & Power of Attorney

( ) executed (X) unexecuted

( ) Small Entity Statement

( ) Assignment/Recordation Form Cover Sheet

( ) Completion of Filing Requirements

PLEASE DATE SLAMP AND RETURN  
The Assistant Commissioner for Patents has received from Bromberg & Sunstein the following re:

Docket No: 2204/196

Art Unit:

Examiner:

Date: May 25, 2000

Express Mail No: EL528434915US

( ) Amendment Transmittal

( ) Amendment (Preliminary)

( ) Response

( ) IDS & References

( ) Petition for month Extension

( ) Transmittal of Formal Drawings

( ) Issue Fee Transmittal & Form PTO-85b

( ) Payment of Maintenance Fee

( ) Check in the amount of \$

( )

( )



RECEIVED

JUN 05 2000

ALL COPY

BRUCE D. SUNSTEIN  
LEE CARL BROMBERG  
ROBERT L. KANN  
TIMOTHY M. MURPHY  
KERRY L. TIMBERS  
JOEL R. LEEMAN  
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\*NON-LAWYER

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ELIZABETH P. MORANO  
DAVID ROBERT FOSS  
JENNIFER R. ADLER  
KEITH J. WOOD  
ALEXANDER J. SMOLENSKI, JR.  
(NOT ADMITTED IN MASSACHUSETTS)

October 17, 2000

### VIA CERTIFIED MAIL

Marty Borden  
30 Shaker Lane  
Littleton, MA 01460

Re: U.S. Patent Application for **Method and Apparatus for Queue Modeling**  
Your File: BA0456  
Our File: 2204/196

Dear Mr. Borden:

We have received our return postcard from the U.S. Patent and Trademark Office (USPTO) relating to the above-referenced patent application. Enclosed for your review is a copy of the return postcard and a copy of the patent application as filed. Also enclosed is a combined Declaration and Power of Attorney and an Assignment.

The USPTO date stamp shows that the application was received on May 25, 2000, and was tentatively assigned serial number 09/579,169.

In order to obtain the earliest possible filing date, the patent application was submitted without an executed Declaration and Power of Attorney. The Declaration is essentially a statement by you that (1) you have read the patent application; (2) you understand the contents of the patent application, including the claims; (3) the patent application correctly describes your invention and the best mode known to you for making and using the invention as of the filing date; (4) you believe that you are an actual inventor of the invention as represented by at least one of the claims; and (5) you acknowledge the duty to disclose all information known to you that may be material to patentability as discussed below. The Power of Attorney enables the named attorneys and agents to prosecute the patent application and transact business with the USPTO as needed to prosecute the patent application. We need to file a fully executed Declaration and Power of Attorney for each inventor in order for the PTO to continue processing the patent

Marty Borden  
October 17, 2000  
Page 2

application. Therefore, please read the patent application, paying particular attention to the claims. If you are satisfied that you understand the contents of the patent application, the patent application correctly describes your invention and the best mode known to you for making and using the invention, and you believe yourself to be an actual inventor, then please execute the Declaration and Power of Attorney by signing and dating the combined Declaration and Power of Attorney at the space provided. If you have any questions or concerns, then please do not execute the combined Declaration and Power of Attorney, and instead please contact me at the telephone number listed above so we can resolve any issues. Also, please contact me if you believe that someone is incorrectly listed as an inventor or someone has been omitted as an inventor so that we can provide the correct inventorship information to the USPTO.

In addition, we need to record an assignment in the USPTO. The enclosed Assignment conveys your rights in the invention to Nortel Networks Limited. Please execute the Assignment by signing and dating the Assignment at the space provided. **THERE IS NO NEED TO HAVE THE ASSIGNMENT NOTARIZED.**

I would appreciate receiving the Declaration and Power of Attorney and Assignment before

**November 15, 2000**

so that we may complete the filing requirements of the USPTO without an additional expense for an extension of time. Once we have received the signed documents from you, we will file them with the USPTO, and assuming that no problems are encountered, we can expect to receive a formal filing receipt in due course.

We remind you at this time that an applicant is under a strict duty of candor and good faith. As part of this duty, an applicant is obliged to disclose to the USPTO any and all information of which the applicant is aware that is material to the examination of the application. Such information is considered material where "there is a substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent." 37 C.F.R. §1.56(a).

One means for complying with this duty of disclosure is the so called "Information Disclosure Statement." An information disclosure statement is a listing of patents, publications, or other information, together with an explanation of the relevance of each listed item, together with copies and translations of listed items, as appropriate. Ideally, an information disclosure statement should be filed with the application. However, an information disclosure statement can also be filed within the later of three months after the filing date of the application or before the first office action is issued. Of course, if the applicant becomes aware of any relevant art at

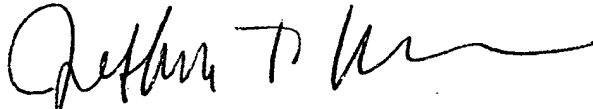
Marty Borden  
October 17, 2000  
Page 3

any point during the prosecution, it is appropriate to file an information disclosure statement at that time as well.

Therefore, if you are aware of any relevant art, including relevant articles, patents, or other publications (or events such as offering for sale or public use of a product embodying the invention more than one year before the effective filing date of the application), please send us copies of these documents (or information concerning these events) at your earliest convenience so that we may comply with the duty of disclosure. For example, you may have uncovered such documents while researching the subject matter to be patented, or conducting novelty or clearance searches. Also, such documents often turn up during the course of prosecution of a related case in a foreign jurisdiction. If there is any question as to whether or not a particular document or event is relevant, it is advisable to disclose that document or event to the USPTO in order to avoid any possible allegation of fraudulent or inequitable conduct, and to strengthen any patent ultimately issuing on the application.

Thank you for your attention to this matter. Please feel free to call me if you have any questions or comments.

Very truly yours,

A handwritten signature in black ink, appearing to read "Jeffrey T. Klayman", with a long horizontal flourish extending to the right.

Jeffrey T. Klayman

JTK/vel/bsb  
Enclosures  
132649